DOCUMENT RESUME

ED 098 412 95 CE 002 517

AUTHOR	Kennedy, Elsie
TITLE	Career Preparation: Suggestions for Teachers.
INSTITUTION	Kentucky Univ., Lexington. Vocational Education Curriculum Development Center.
SPONS AGENCY	Bureau of Occupational and Adult Education (DHEW/OE), Washington, D.C.; Kentucky State Dept. of Education, Frankfort. Bureau of Vocational Education.
PUB DATE	Aug 74
GRANT	OEG-0-72-4683
NOTE	46p.; For other materials in the series, see CE 002 513-516
AVAILABLE FROM	Curriculum Development Center, Room 151, Taylor Education Building, University of Kentucky, Lexington, Kentucky 40506 (Single copies only, $2.00)
EDRS PRICE	MF-$0.75 HC-$1.85 PLUS POSTAGE
DESCRIPTORS	Career Awareness; Career Choice; *Career Education; Course Organization; *Curriculum Development; Curriculum Planning; *Educational Methods; *Educational Strategies; Guidelines; Instructional Aids; Integrated Curriculum; Occupational Clusters; *Secondary Education; Teaching Guides; Teaching Techniques; Unit Plan
IDENTIFIERS	Kentucky

ABSTRACT

The last of five documents developed as an outgrowth of funded programs for career education in Kentucky, the handbook for high school teachers involved in career education includes an overview, startegy for curriculum development, strategies for teaching, and sample units and plans. It is not a curriculum guide or comprehensive outline but rather practical suggestions for the classroom teacher. The 15 occupational clusters are listed and broadly defined. Elaborating on the preparation stage of career development and the integration of subject matter areas and career education at the high school level, the following teaching techniques are outlined: (1) the interview, (2) research, (3) class meetings, (4) field trips, and (5) the use of specialists. Guidelines to assist the teacher in unit planning deal with content development, resources, student performance, and student evaluation. Six facets of unit design for all grade levels are presented: (1) visibility, (2) the person as a resource, (3) academic values, (4) classroom management, (5) parent communication, and (6) the finished product. Occupations related to interest and ability in certain subject areas are listed. Concluding the document are two sample units that illustrate the proposed methodology. (MW)

ED 098412

CURRICULUM DEVELOPMENT CENTER

VOCATIONAL EDUCATION

UNIVERSITY OF KENTUCKY

LEXINGTON, KY. 40506

BEST COPY AVAILABLE

CAREER PREPARATION--

Suggestions for Teachers

Prepared By

Elsie Kennedy

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

CE002 517

This guide was developed as partial fulfillment of a grant pursuant to contract No. OEG-0-72-4683 with the Curriculum Center for Occupational and Adult Education, U.S. Office of Education, Department of Health, Education, and Welfare by the Curriculum Development Center in Kentucky. Funds were provided by P.L. 90-576, Part I, Sec. 191 (a).

(This page was prepared at the Clearinghouse due to the marginal reproducibility of the cover.)

PREFACE

This booklet is one of five documents developed as an outgrowth of funded programs for career education in Kentucky. These documents are:

I. Comprehensive Career Education

II. Implementing Career Education--Procedures and Techniques

III. Career Awareness--Suggestions for Teachers

IV. Career Exploration--Suggestions for Teachers

V. Career Exploration--Suggestions for Teachers

VI. Career Preparation--Suggestions for Teachers

We wish to thank the following members of the advisory committee for reviewing the "Suggestions for Teachers" documents:

Herbert Bruce
Randy Wicker
Judy White
Louise Switzer
Conley Manning
William Davis
Jackie Cantrel
Betty Smith
Imelda Van Fleet
Joe McPherson
Pat Gibson
Floyd L. McKinney

A special debt of gratitude is due Barbara Preli, the Director of Career Education for the Louisville school system and to Otto Mattei, Judy White and Betty Smith of the career education "Project People" program in the Bowling Green school system. These people have furnished much of the material found herein. We would also like to thank Tom VanTreese for designing the covers for all five documents.

Elsie Kennedy
Curriculum Specialist
Curriculum Development Center
in Kentucky

TABLE OF CONTENTS

	Page
Purpose of the Booklet	1
Comprehensive Career Education	1
Strategy for Curriculum Development	6
Career Preparation	15
Strategies for the Teacher	19
Units and Plans	27

Purpose of booklet

The purpose of this booklet is to aid teachers who are not familiar with the concepts involved in career education in developing their own materials (based on the resources available in their communities) for use in implementing career education in the classroom. It is not a curriculum guide or a comprehensive outline integrating learning skills and careers; rather it is an overview of career education potentials which attempts to give practical help to the classroom teacher.

Comprehensive Career Education

Career education has been defined in a variety of ways, but not to the satisfaction of everybody. Basically it concerns itself with restructuring the subject matter content of educational systems in a manner which predisposes student involvement in the world of work from an early age until they leave school to take their places as productive members of society. It is a concept which could add relevance to education for all of our young people. Career education refocuses the curriculum toward career possibilities without diminishing the quality of educational opportunities for the college bound student; rather, these students will also benefit from career education because they will have been exposed to the real working conditions of occupations and can thus make more realistic career decisions prior to spending four or more years in college.

Career education embodies a concept designed to decrease the dropout rate by exemplifying the utilitarian value of the various academic subjects

in the adult life of working people. It is also a pragmatic approach to revitalizing the work ethic. Hoyt,[1] et al., states that a new work ethic must be developed and taught in early childhood to be most efficient, and this new work ethic should have at least four elements: (1) the value of volunteer activity, (2) the dignity of all work, (3) the satisfaction of human service, and (4) the necessity of multiple careers. Above all, he states it should emphasize that we are what we achieve, whether in service or character development. By revitalizing the work ethic we might, in turn, decrease the number of participants in welfare programs and increase the number of persons with positive self-images who have made career decisions based on both a knowledge of self and a knowledge of the world of work. These knowledges will derive largely from a continuum of planned educational experiences integrating the world of work with subject matter areas and skills development, both inside and outside the school environment, and will facilitate realistic career decisions incorporating interests as well as capabilities.

Career education is concerned with helping young people make realistic decisions regarding their own futures and defining the role education plays in those futures. Consequently, the guidance counselor plays an important part in career education programs. It is the guidance counselor's role to help students develop a positive and realistic self concept, an understanding of the world of work and the relationship between work and education, and an understanding of the decision-making process.

Consistent with career development concepts, career education can

---

[1] Kenneth Hoyt, et al., Career Education: What is it and How to do It (Salt Lake City: Olympis Publishing Company, 1972), p.40

be divided into five phases:

(1) the awareness phase to help all individuals become familiar with the values of a work-oriented society, and emphasized primarily in grades K-6 but extending throughout life.

(2) the orientation phase to provide appropriate educational experiences which enable the individual to become familiar with the economic system, and emphasized in grades seven and eight but continuing throughout the educational experience.

(3) the exploration phase to allow the student to explore various occupational clusters, to obtain initial work experience, and to integrate work values into their personal value system; this may begin in grade seven and may extend through grade ten.

(4) the preparation phase to encourage the individual to narrow his choice of careers and prepare him to enter the labor market or continue his education in order to enter the labor market at a different level of employment; this phase may begin in grade ten and end either at grade twelve, in post secondary level, at the close of a continuing education program or advanced graduate or post graduate program.

(5) the adult and continuing education phase to assist in the individual's advancement and aid adults in discovering, analyzing, and preparing for new careers.

The basic elements that permeate all career education are:

(1) CAREER AWARENESS
A knowledge of the total spectrum of careers.

(2) SELF AWARENESS
A knowledge of the components that make up self.

(3) ECONOMIC AWARENESS
Perceived processes of production, distribution and consumption.

(4) EDUCATIONAL AWARENESS
Perceived relationship between education and life roles.

(5) SKILL AWARENESS AND BEGINNING COMPETENCE
Ways in which man extends his behaviors.

(6) DECISION-MAKING SKILLS
Applying information to rational processes to reach decisions.

(7) EMPLOYABILITY SKILLS
Social and communication skills appropriate to career placement.

(8) APPRECIATIONS, ATTITUDES
Life roles, feeling toward self and others in respect to society and economics.

And the element outcomes are:

1. CAREER IDENTITY
Role or roles within the world of work.

2. SELF IDENTITY
Knowing one's self.

3. ECONOMIC UNDERSTANDING
To solve personal and social problems in an economic environment.

4. EDUCATIONAL IDENTITY
Ability to select educational avenues to develop career plans.

5. EMPLOYMENT SKILLS
Competence in performance of job related tasks.

6. CAREER DECISIONS
Career direction with a plan for career development.

7. CAREER PLACEMENT
Employed in line with career development plan.

8. SOCIAL SELF FULFILLMENT
Active and satisfying work role.

To be most effective a career education program must be (1) comprehensive in the sense that it is broadly based, (2) dynamic with the capacity to change and grow, (3) programmatic in the sense that it draws together many aspects of total education and draws upon the resources of industry, the community and the home, and (4) sequential in that career development is a step-by-step process. One desirable aspect of career education is the location of an employment service in the high school for direct placement of students in jobs and/or on-the-job training.

Since career education is a life-centered program, much of the subject matter taught in the schools can be integrated with occupational information; but no basic skills, techniques and knowledges in subject matter areas are neglected. Rather, career education complements the

skills, techniques and knowledges acquired by exemplifying the function of education in the world of work. For simplification purposes the world of work has been divided into clusters which can be incorporated into the regular curriculum at any grade level.

As stated previously career education can be divided into five phases--awareness, orientation, exploration, preparation, and adult and continuing education. In this booklet we are concerned only with the preparation phase which will be discussed in more detail later.

To aid in facilitating a strategy for curriculum development for career education, the United States Office of Education devised the cluster system.

Strategy for Curriculum Development

The cluster system is a means of organizing the world of work. It is a logical breakdown of occupations and a grouping of those which have some basic commonalities. The United States Office of Education identified fifteen occupational clusters which are listed below along with a few of the occupations found within the clusters. There are of course many others.

I. Agribusiness and Natural Resources

a. Jobs in the agribusiness production family: field worker, field supervisor, production superintendent, farm manager, farm owner and manager.

b. Jobs in the agribusiness supplies family: warehouse assistant, warehouseman, farm serviceman, store manager, field technician, agricultural engineer.

c. Jobs in the agribusiness mechanics family: assemblyman, mechanic, shop foreman, parts manager, machinery designer, research engineer.

d. Jobs in the agribusiness products family: meat plant worker, butcher, products grader, milk processing plant worker, ice cream plant worker, product packer, livestock buyer, produce inspector, laboratory technician.

e. Jobs in the horticulture family: florist helper, greenhouse worker, garden center salesman, greenhouse supervisor, florist, landscape architect.

f. Jobs in the natural resources family: conservation aid, game farmer, fish hatchery worker, game warden, forest ranger, soil scientist, environmental engineer, coal miner, oil field worker, lumberman.

II. Business and Office

a. Jobs in the clerical family: clerk typist, file clerk, office machines operator, receptionist, stenographer, bookkeeper.

b. Jobs in the secretarial family: executive, bilingual, educational, legal, medical, foreign service, civil service, technical.

c. Jobs in the data processing family: tape librarian, key punch and coding equipment operator, computer and console operator, programmer, systems analyst.

d. Jobs in the management family: personnel manager, credit and collection manager, clerical and office supervisor, budget management analyst, administrative assistant.

e. Jobs in the business ownership family: personal services, business services, transportation, manufacturing, construction, retail franchise, dealership.

III. Communications and Media

a. Jobs in the audio-visual family: commercial photographer, lithographer, photo engraver, film production worker, model, darkroom processor, recording equipment technician, recording artist, electronics systems technician, audio systems technician.

b. Jobs in the language family: sign painter, illustrator, advertising personnel, foreign service worker, interpreter, symbol designer.

c. Jobs in the publishing family: bookbinder, type setter, proofreader, creative writer, sports reporter, editor, typist, publisher, illustrator.

d. Jobs in the broadcasting family: radio and television announcer, actor, news reporter, musician, technician, repairmen, satellite transmission technician, laser transmission technician, federal and international communications personnel, scriptwriter.

e. Jobs in the line communications family: data transmission technician, systems analyst, programmer, computer and console operator, peripheral equipment operator, Morse code operator, telegraph and telephone lineman, telephone operator, business office personnel, repairman.

IV. Construction

a. Jobs in carpentry family: dock carpenter, maintenance carpenter, hardwood flooring carpenter, billboard erector and repairman, joiner, acoustical carpenter, wood boatbuilder, carpenter inspector.

b. Jobs in the painting and decorating family: rough painter, structural steel painter, boat painter, painter and decorator apprentice, waterproofer.

c. Jobs in the heating family: hot air furnace installer, helper, repairman.

d. Jobs in the roofing family: roofer helper, corrugated sheet material sheeter, roofer apprentice, roofer.

e. Jobs in the glazier family: glazier foreman, glazier helper, glass installer, glazier in construction.

f. Jobs in the plastering family: plaster helper, permastone dresser, molding plasterer, plasterer, leather, stucco mason.

g. Jobs in the drywall installers family: dry-wall applicator, sander, taper.

h. Jobs in the masonry family: tuck pointer, terrazzo worker, stone mason, soft-tile setter, permastone man, monument setter, marble setter, bricklayer (firebrick, tile), chimney repairman.

V. Consumer and Homemaking - Related Occupations

a. Jobs in the foods and nutrition family: dietitian, nutritionist, food salesman, kitchen manager, cook, steward, stewardess waiter, waitress, cashier.

b. Jobs in housing and home management family: interior designer, equipment home economist, salesman, window dresser, hospital housekeeper, hotel housekeeper, painter, chambermaid, custodian.

c. Jobs in the clothing, textile, and fashion family: teacher, extension specialist, fashion editor, weaver, buyer, salesperson, dressmaker, tailor, presser, inspector, checker, designer.

d. Jobs in the family and child development family: teacher (early childhood education), social service worker, director of day care center, paid companion, child care aide, baby sitter.

VI. Environmental Control Occupations

a. Jobs in the land family: mine inspector, ecologist, geologist, horticulturalist, conservation worker, park director, camp counselor, forest ranger, landscape architect, game warden, seismologist.

b. Jobs in the water family: water purity inspector, microbiologist, public water supply worker, coast guard member, chemical engineer, public health worker.

c. Jobs in the air family: anti-air-pollution equipment designer and builder, air-pollution inspector, plant inspector, filter maker, environmental technician, allergist, industrial engineer.

d. Jobs in the disposal family: garbage collector, city dump yard work, sewer line worker, city engineer, industrial engineer, junk dealer.

VII. Fine Arts and Humanities Occupations

a. Jobs in the art family: painter, portrait artist, sculptress, printmaker, designer, interior decorator, potter, jewelry designer, jewelry maker, weaver, textile designer, set designer, T.V. illustrator, magazine or newspaper illustrator, cartoonist, art teacher, crafts teacher, architect, art historian, museum worker.

b. Jobs in the music family: opera singer, night club singer, folk singer, recording artist, band director, instrument player, church organist, vocal teacher, instrument teacher, instrument tuner, instrument maker, music store clerk, song writer, lyrics writer, music publisher, music critic, music historian.

c. Jobs in the dance family: dance instructor, ballet dancer, belly dancer, night club entertainer, stage entertainer, television or motion picture entertainer, folk dance teacher, choreographer.

d. Jobs in the drama family: actor, actress, director, producer, stage manager, ticket salesman, costume designer, cameraman, set designer, usher, lighting expert.

e. Jobs in the literature family: poet, novelist, short story writer, teacher, playwright, literary critic, proofreader, editor, publisher.

f. Job in the philosophy family: teacher.

g. Job in the humanities field: teacher.

VIII. Health Occupations

a. Jobs in the administration family: public health administrator, hospital administrator, assistant administrator, clinic administrator.

b. Jobs in the prevention and control family: environmental engineer, sanitation engineer, microbiologist, epidemiologist, food and drug inspector, nutritionist, school health educator, hygienist.

c. Jobs in the treatment and care family: doctor, physician's assistant, dentist, dental assistant, dental hygienist and technician, nurse, practical nurse, psychiatric aide, medical technologist, dietitian, hospital cook, orderly, ambulance driver, medical librarian, medical records clerk, pharmacist.

d. Jobs in the rehabilitation family: physical therapist, occupational therapist, speech and hearing therapist, prothesis and restoration technician, social worker, optician.

e. Jobs in the health education and communication family: health educator, medical illustrator, medical librarian, health economist, nutritionist.

f. Jobs in the medical research family: biochemist, biophysicist, epidemiologist, radiologist engineer and technician, statistician.

IX. Hospitality and Recreation Occupations

a. Jobs in the hospitality family: restaurant owner, waiter, waitress, chef, doorman, desk clerk, bartender, hat-check girl,

dancer, vocalist, musician, porter, motel manager, hostess, cashier, laundry worker, dish washer, short order cook, rest room attendant.

b. Jobs in the recreation family: life guard, pin boy, professional athelte, skating ring attendant, ski lodge desk clerk, bicycle repairman, snowmobile salesman, dock manager, boat repairman, camp director, camp counselor, crafts director, naturalist, Girl Scout or Boy Scout field director, Y.W.C.A. or Y.M.C.A. worker, playground director, safari guide, carnival worker, circus performer, sports writer, ticket salesman.

X. Manufacturing

a. Jobs in management: plant manager, production manager, personnel manager, researcher and developer, designer.

b. Jobs in personnel technology: Labor relations personnel, human engineer, training personnel, retirement counselor, labor consultant, stenographer.

c. Jobs in engineering: designer, draftsman, technical writer, production cost estimator, production researcher, clerk and stenographer.

d. Jobs in production technology: electrician, millwright, material testor, quality controller, fabrication specialist, machine installer, packaging personnel, distribution personnel, product servicing personnel.

e. Jobs in production: process planter, warehouseman, material handler, machine operator, craftsman, production line worker, fabricator, assembler, welder, rivetor, custodian, sweeper, systems controller, programmer.

XI. Marine Science

a. Jobs in the oceanography family: biological, physical, geological and chemical oceanographer, oceanography teacher, laboratory assistant, marine technician, marine miner, under-sea warfare engineer, ship crewman, submarine crewman, radio operator.

b. Jobs in the limnology family: biological, physical, geological and chemical limnologist, public health service scientist, fish culture technician, laboratory technician, water power engineer, flood gate operator, army engineer, microbiologist.

XII. Marketing and Distribution

a. Jobs in the management and mid-management family: store manager, advertising manager, assistant store manager, buyer, assistant buyer, management trainee.

b. Jobs in the supervision family: department supervisor, warehouse supervisor, floor supervisor.

c. Jobs in the personnel family: personnel department manager, inservice trainer.

d. Jobs in the marketing system: salesman, bridal consultant, personal shopper, demonstrator, manager of distribution warehouses, driver salesman, route salesman, export manager, import-export agent, customs house broker, buyer, sales promotion personnel such as copy writer, artist, lay-out man, display person.

e. Jobs in marketing services: broker, floor representative, financial service salesman, securities trader, credit department personnel, estate planner, claims adjustor, investigator, life underwriter, market analyst.

XIII. Personal Services Occupations

a. Jobs in the human body family: dressmaker, tailor, shoe shine boy, barber, cosmetologist, shoe repairman, ambulance driver, dentist, doctor, bartender, minister, cook, teacher, librarian, masseur.

b. Jobs in the home and property family: babysitter, detective, nursery school director, repairman, house painter, cabinet maker, insurance agent, furniture repairman, yardman, landscape architect, garbage collector, paper boy, domestic helper, interior decorator.

c. Jobs in the business and economics family: bank clerk, bail bondsman, messenger boy, secretary, lawyer, welfare worker.

XIV. Public Service Occupations

a. Jobs in the local service family: fireman, policeman, city councilman, school superintendent, school board member, deputy sheriff, jailer, telephone operator, city bus driver, life guard, mailman, paper boy, broadcaster, water purification worker, electrical worker.

b. Jobs in the state service family: state policemen, governor, superintendent of public instruction, child welfare worker, state park director, bus driver, mental health worker, rehabilitation worker, meat inspector, ecologist, worker at state university.

c. Jobs in the national service family: F.B.I. man, armed serviceman, congressman, army depot worker, taxpayer assistant, social security clerk, agricultural researcher, food and drug inspector, national guardsman, weather bureau worker, federal judge, national airline pilot, public health doctor, veteran's hospital nurse, geological surveyor, national park worker, labor relations mediator, lock and dam attendant, postal inspector, federal prison guard.

d. Jobs in the international service family: international airline stewardess, international policemen, United Nations clerk, interpretator, ship's crewman, overseas telephone operator, embassy worker, narcotic agent, satellite communications technician, exporter-importer.

XV. Transportation

a. Jobs in the land transportation family: taxi driver, automobile designer, used car salesman, auto mechanic, auto body repairman, motorcycle repairman, bus driver, ticket agent, travel agent, teamster official, railroad engineer, truck driver, porter, traffic policemen, bicycle salesman.

b. Jobs in the water transportation family: dock worker, longshoreman, navigator, radio operator, lighthouse keeper, barge owner, seaplane or navy pilot, professional water skier, boat builder, merchant marine, travel agent, ship's nurse, submarine mechanic.

c. Jobs in the aerospace family: airline hostess, co-pilot, ticket agent, airplane mechanic, airplane designer, traffic controller, astronaut, computer operator, space suit designer, dietician, television technician, steelworker, electrician.

d. Jobs in the conveyor family: pipeline welder, equipment operator, structural worker, geologist, driller,rigger, engineer, surveyor, refiner worker, elevator operator, cable car conductor, machinery repairman.

It should be obvious from the job titles listed in the various clusters that an occupation may fall within more than one cluster, and it should be equally obvious that there is nothing sacred about this particular cluster system. Some schools incorporate all careers into eight or ten clusters of their own making, while others have developed as many as thrity-five clusters. For example, a cluster could be developed around the field of electricity, or the paper industry, or water, or eyesight. The possibilities are almost endless.

Another approach is to cluster the careers around the subject matter areas with teachers correlating the world of work with academic fields.

Regardless of the structure chosen as a means of fusing career education with the curriculum, nothing in the way of skills and knowledges needs to be deleted from the academic field.

Obsiously the cluster system was devised as a means not only of organizing the world of work into some type of manageable groupings but also to aid the teacher by providing a starting point for curriculum development. Once the framework of career education has been conceptualized it can be more easily integrated into subject matter areas and unit plans can be developed from there.

A teaching unit is generally more effective for several reasons if students help at the planning stage. The primary reason is psychological. Students cooperate more fully in the learning activities if they are learning something they really want to learn. By helping design the learning package the students are forced to do some thinking, planning and decision-making; they often come up with some very good ideas too.

There are a number of ways to write a unit, consequently not all units will be written in the same manner. The format most generally accepted contains a "main" or "general" objective or "goal" followed by "performance" or "behavorial" objectives. (Teachers writing units are encouraged to do research on the use and writing of behavioral objectives.) Then the "content" or areas to be covered are listed, followed by the "teaching-learning activities," a means of evaluation, and the necessary resource materials needed to teach the unit. A skeletal outline for a career education unit might look like this:

Unit: _____

Cluster: _____

Major Objective: _____

Performance Objectives:

1. _____
2. _____
3. _____
4. _____

Teaching-Learning Activities: (How)

1. _____
2. _____
3. _____

Evaluation: (Relate back to objectives)

1. _____
2. _____
3. _____

References and Resources:

1. _____
2. _____
3. _____

Additional information on unit writing for career education can be found on page 27 of this booklet.

The Preparation Phase

The preparation phase of career education may begin at grade ten and end either at grade twelve, in post secondary programs, at the end of a continuing education program with a baccalaureate degree or beyond. The preparation phase may be a continual cycle as some jobs become obsolete and new jobs emerge. During this phase the student makes positive (or tentative) career decisions and prepares himself for a specific occupation or for continued education if the career chosen requires a higher degree. If career education concepts are new to the school and/or school system it may be beneficial to have an orientation period which familiarizes both teachers and students with the concepts involved in career education and particularly with the cluster system of job identification and description. An expanded and intensified guidance program may need to be developed, and the guidance counselors may need to be relieved of quasi administrative duties in order to devote more time to administering occupational preference tests, counseling students concerning their career choices and career capabilities as well as helping students develop skills in the decision making process.

It is not here implied that each student will make a hard and fast decision on career choice in the 10th grade, and spend the remainder of time in school preparing for that one career, though in some instances this may be the case. In all probability a student will change his/her mind about a career choice several times during these formative years. This is not wasted time. It is equally important to know what one does not enjoy doing as it is to discover what type or types of career activity the student finds satisfying.

Ideally these last few years in high school should be years in which the students will have many options about how to spend their time in more productively preparing for adult life. This self determinator helps develop decision making skills. Students should have the option of learning skills related to their career choices in order to develop a more marketable self when the time comes to enter the world of work.

It is not here implied that any academic area should be neglected with regard to content, though the emphasis may shift to demonstrate the utilitarian value of acquiring knowledge. For some students the pleasure of accumulating knowledge for the sake of it remains. Certainly no one wishes to discourage the potential scholar nor water down content to the detriment of the college bound student. Only 40 of the 168 hours in a week will probably be devoted to career activities during ones working years. Assuming 56 hours per week are devoted to sleep, there remains 72 hours per week that could be productive in terms of intellectual pursuit, worthy avocation, recreation and/or creative endeavors. Students need preparation for these important areas of their lives also.

How teachers in specific academic areas incorporate career education with their area is largely an individual matter, but it should be remembered that the emphasis is not on the job per se, but on the person doing the job. Probably the best starting point for the teacher would be to examine the job clusters individually, and the careers found therein, to determine which clusters best lend themselves to the academic area. Next, determine which occupations can be found in the local community so the teacher can have readily accessible resource people and students can acquire some on-site career knowledges and experiences. The prevailing tendency toward population mobility makes it advisable to include in the curriculum a study

of careers not native to the local situation. Obviously actual experience in these careers will be limited if not prohibited. Simulated experiences, however, can be developed for some careers and free films from business and industry can be utilized.

The role of the teacher and the guidance counselor during the preparation phase is many faceted. One of the primary roles is aiding the student in the decision-making process of correlating his abilities, capabilities, likes and interests with an occupational choice. This may involve detailed exploration of careers which will perhaps enable the student to make a decision, however tentative. Next, it is necessary that specific career experiences be provided in depth to develop the skills and knowledges needed to help the student enter the world of work or college preparation. Experiences with real work situations within the school and community settings can be provided. This, in turn, may make the subject matter areas of the current curriculum more relevant as the utilitarian value of skills and knowledges becomes more evident.

Present trends indicate young people today may expect to change careers a number of times. A knowledge of many career opportunities becomes essential if career changes are to be made with a minimum degree of stress. Consequently, some segments of the orientation and exploration phases of career education will remain as part of the preparation phase especially with regard to rapidly changing technology which creates new jobs while making other jobs obsolete. One of the prime concerns of occupational counseling should be that of helping the students determine, intelligently, what would be transferrable from one career to another.

Methods of implementing the preparation phase of career education varies from school system to school system. Since the orientation and

exploration phases remain as part of the preparation phase the techniques used in these other phases will be included in the strategies for teachers in the preparation phase.

Strategies for Teachers

Integrating Subject Matter Area and Career Education

Ideally for career education to be successful at the preparation stage, some actual work experiences in the student's chosen area of career concentration needs to be provided. Whether this experience is to be a part of the regular school activity (entailing flexible scheduling) or an after school and/or weekend experience will have to be decided by the school administration. Some career awareness may continue into the preparation phase as students expand their knowledge of existing careers. Integrating the career awareness, career exploartion and/or career preparation phase with the subject matter taught in the classroom will be primarily the responsibility of the individual teacher.

The role of the individual teacher with regard to integrating subject matter and a specific career education cluster may have to be defined at the administrative level in order to avoid duplication. Using the health occupations cluster as an example, the responsibilities might be divided in the following way:

Art: The class (or individuals within the class) could examine and prepare for careers in medical illustrating or commercial art for advertising health related supplies and equipment and pharmaceutical display and advertising. The students could design floor plans and architectural renderings for medical facilities, design wall hanging for specific areas in a hospital, design attractive crutches, canes, wheel chairs, etc. (perhaps to be rendered in the new plastics or in a variety of color schemes).

Business and Office: The teacher could develop units which would give business and office experience related to medical secretaries, medical records workers, hospital payroll workers, medical receptionists and related fields.

English: The teacher could develop units which would relate communications skills to health occupations, public relations, advertising, medical dramas and interviewing techniques to use while interviewing medical personnel.

Home economics: The teacher could develop units which deal with health and safety in the home, first aid, common diseases of children, medical symptoms and home treatment, problems of pregnancy, etc. For practical experience in the health occupations, students might be encouraged to work as volunteers for a local hospital or public health agency. Occupations dealing with hospital nutrition, food and drugs, environment, sanitation, etc., could be explored.

Industrial Arts: The teacher could develop units which would give students an opportunity to design and build rehabilitation equipment such as ramps, walkers, canes and crutches. Local hospitals, health agencies, and individual doctors might be contacted to ascertain what equipment is needed and the specifications.

Librarian: The librarian will function as a resource person and supply materials on health occupations to teachers and students, including the role of a medical librarian.

Mathematics: The teacher could develop units which deal with the computational skills needed in health occupations including the metric system, medical costs, health and life insurance costs, benefits, and the mathematics skills needed by an actuary, a medical technician, a nurse, a doctor a public health administrator, a microbiologist and a statistician.

Music: The teacher could supply some experiences in the realm of music therapy for mental and physical illness and analyze the type of music used in doctors and dentists office and in hospitals. He/she could examine "mood music" with the students.

Physical education: Most units on health are already taught by the physical education teacher so the health occupations will be no problem. They need only to devise some means of providing students with some practical experiences which could lead to preparation for health occupations.

Social Studies: The teacher could develop the units to introduce the health occupations to students, furnish the historical background, examine the social and economic effects of health occupations at the local, state, national and international levels as well as the need for and the economic rewards of careers in the health field. The structure of various social service agencies devoted to health problems could be studied, i.e., Easter Seal, Heart Fund, Cancer Fund, Red Cross, etc., including examination of careers in this area. To gain practical experiences the students might serve as volunteers for such agencies.

Science: The teacher could deal with the laboratory knowledges and techniques related to such health occupations as sanitation engineers, microbiologists, epidemiologists, food and drug control workers, medical technologists, biochemists, biophysicists and others.

Another approach to integrating careers with subject matter is for each teacher to work individually on each cluster, selecting those careers most closely associated with the subject they teach and developing units of study accordingly. These units should include practical experiences for students in actual on-the-job settings or in simulated environments if real experiences in an occupation are unavailable in the community.

The following strategies for teachers were developed by Barbara Preli, Career Education Director for the Louisville public schools.

Interview

The interviewing process is an excellent means of research, inquiry, listening, and communicating. It can be conducted as a class or by an individual.

Initial Activity:

1. Develop with the class, by means of the class meeting, rules and procedures for interviewing.

2. Once the rules and procedures are established, let the students practice on one another or with tapes so as they will feel self-confidence in the interviewing process.

General Procedure:

1. Choose one student as the interviewer.

2. A day or two before the interview, let the class discuss the questions they feel would benefit them to ask the subject. These can be supplemented by the teacher in a skillful way.

3. The chosen student is responsible for conducting the interview. If the interview is conducted in front of the class, a general question period can be held after the initial interview.

4. If the interview is a private one, the student should report in some way to the class the results of the interview.

5. Always have the student write a thank-you note to the guest.

6. Try to use as many local people as possible. This creates good feelings, and these are people the students see everyday and can associate with.

7. Invitations for speakers may be by teacher or student. Establish class procedure if the student makes the invitation.

Some examples of questions:

1. What schools did you attend?

2. What is your present job?

   How did you get it?
   How long have you worked there?
   What time do you go to work?
   What do you do on the job during the day?

3. What things do you like most about your job? Least? Are there any hazards?

4. What is the usual starting salary in jobs like yours?

5. What qualifications do you need to get the job?

6. What preparation do you need?

7. What is the outlook for the future? Advancement? Supply and demand for workers?

8. Hours: Regular? Overtime? Evening? Sunday? Holiday? Steady or seasonal?

   (Adapted from material in Occupational Information by Robert Hoppock, McGraw-Hill Book Company, 1967.)

These are just some examples. The students will think of many, many more. Remind the students of the skills of good listening, not interrupting, changing of subjects, asking the same question again, speaking in turn.

Research

Research should be conducted by every student in every grade level. The amount and the manner of research depends upon the individual student.

Research can be done in many ways:

Written
Interviews
Films and filmstrips
Recordings and tapes
Books
Charts
Letters
Magazines
Newspapers
Commercials

The student in some way should keep an account of the information he finds, classify it, compare it to others he has found, differentiate which to keep.

The student should in some manner make the information he has found available to others, e.g., notebook, tape, interview, chart, picture.

Class Meetings

Create an aware, free, accepting atmosphere. The students should feel free to express their views in an appropriate manner.

Establish guidelines in discussion before each session begins. The same guidelines should hold for all sessions. A reminder may be needed until the students acquire the skill. Talk together about being good listeners, not interrupting, keeping to the subject, not talking all the time, waiting turn patiently, not speaking when someone else is, and not raising hands.

Avoid teacher lecture and student-teacher-student exchanges.

Avoid giving positive or negative reinforcement upon a student's statement. Be accepting, not judgmental.

The teacher's role is as a leader but in a silent way. Break a long pause, start a discussion, bring a silent student into the discussion. Keep as much attention away from you as possible.

Roles the teacher might play:

Initiator:	Suggests to the group ideas for discussion or poses a problem to be solved. Can also be used for task orientation.
Clarifier:	Shows or clarifies the relationships among various feelings, ideas, and suggestions or tries to integrate feelings, ideas, and suggestions.
Interpreter:	Interprets feelings expressed by members of the group or class, or interprets the significance of non-verbal behavior.
Reflector:	Reflects feelings expressed by members of the class. Usually limited to individual feelings expressed.
Expeditor:	Encourages and facilitates the participation of others. Stimulates the discussion to a higher degree. Prods the class to decision.
Evaluator:	Subjects the accomplishments of the group to some standard in the context of the group task

Field Trips

Why?	A field trip can be an excellent means of gathering information on a first-hand basis. It can be used as an initial or culminating activity. Workers can be viewed in real-life settings as they carry out their roles and responsibilities. Field trips can open the community as a classroom.
Who?	The field trip can be a class trip, a small group, or an individual.
Where?	The trip can be held in the school room (imaginary), the school building, the home, the neighborhood, the city.
How?	The class together arranges an appropriate time. The arrangements can be made by the teacher. The teacher should know the place to be visited and be aware of the important things to see. Background information should be gathered by doing research before the trip.

The class and teacher should plan together what they expect to see and what questions they should ask. In some cases responsibility for asking those questions might be delegated to certain people.

The trip should be evaluated as a class upon return:

Were our plans adequate?
Were our questions appropriate?
Were our questions answered to our satisfaction?
What things did we observe that were new to us?
What new questions do we now have?

Follow-up activities such as reports, charts, bulletin boards, murals, etc., should be conducted.

A thank-you note should be sent being careful to include the class' observations. A student should be responsible for the note.

Use of Specialists

There are many different types of specialists in every community: farmers, auto mechanics, florist, milkmen, newspaper personnel, radio technicians, repairmen, salesmen, clerks, bank tellers, cafeteria or restaurant workers, telephone company personnel, plumbers, electricians, carpenters, hair stylists, teachers, doctors, policemen, agricultural extension workers, social workers, local, state and federal employees, pharmacists, local government personnel and garbage collectors to name but a few. All of these people can act as resource people for career education, either through field trips to their places of business or through the interview techniques previously mentioned. There is a wealth of resource people in even the smallest community. The larger the community the greater will be the variety of resource people available. Career education is an excellent vehicle for bringing the school and the community closer together through mutual involvement.

In addition to local specialists many communities are located within easy driving distance of a college or university where there are many specialists in a wide variety of fields work. These specialists devote their time to teaching, research and service. Many of them may be willing to visit schools and discuss their particular speciality. Very specialized workers in some fields might be interviewed by correspondence or telephone conference if the budget permits.

Career education takes on more meaning and relevance when students are in actual contact with working people. Consequently resource people become an integral part of the total program.

Unit Planning

There are three basic components which are considered in writing units for career education. First, the teacher must consider the accessibility of resource people, materials, and services which are available to the learners. Next, the teacher must consider the mobility of available resources and how these can be used to develop the subject area. Lastly, the teacher must consider creating performance opportunities for the learner, and this is perhaps the most difficult part of the preparation phase of career education.

One of the oldest programs of career education utilizing the preparation phase in Kentucky is found in Bowling Green High School's "Project People." Bowling Green's career education program tends to center around the classroom and subject centered teachers. The rationale behind this strategy is to help the teachers synthesize the basic skills for which they are responsible into the world where these skills will be used. This high school operates on a phase-elective basis with 234 course offerings. Practically every course has a built-in career education unit. Bowling Green High School faculty uses the Universal format for unit writing. They feel that a uniform format for unit development and planning will provide articulation of the program between and among grades while providing a commonality of communication for the teachers.

The following is from the Bowling Green Career Education manual for teachers, counselors and administrators.

"Career education unit writing begins by answering three basic questions:

1. What content am I teaching?

2. What are my available resources?

3. What do I expect my students to accomplish?

These questions can be expanded so that they will read as follows:

1. What subject area or idea can relate to the unit study?

2. How can textual and other reference materials be utilized, and what human resources and school-community resources are available to humanize and to show relevance to the curriculum?

3. What will the students accomplish, how will their progress be evaluated, and what products will result?

Now we can refine the process even further so that it will look like this:

CONTENT

List the subject area(s) or concept(s) you wish to teach:

Here are some questions you may ask yourself about what you want to teach:

...Can the idea meet or generate the interest of the student?

...Can the reasons for instruction and their clarity for the learner and the parent by evident?

...Can the force generated by the idea pull together new relationships from past studies, and contribute to new learning in academic areas?

...Can the student work at his own pace and at his own accomplishment level?

...Can the student learn to encounter the fundamental life activities of his community and the contemporary world?

...Can the student learn to search through time and cultures to build an appreciation of his heritage?

...What effect can the content have upon the student's self-image, as a person who is creating his human biography each day?

RESOURCES

There are some questions you may ask yourself about available resources:

...What human resources are available?

...Will the student have the opportunity to find out about the resource person's job?

...What tools can the student use to uncover information?

...What physical facilities can be available for the student's use to study alone, to work in groups, to observe, to practice?

...What materials can be available for the student's use in the daily course of instruction?

...What sensory stimuli can the student encounter?

...Can the student's own thoughts and feelings be utilized as a basis for his own reflection or action?

List resources available in your community and check the ones you can use: (People, places, materials, others...)

PERFORMANCE

These are questions you might want to consider:

...Can the student's achievements, and the feedback he can receive, be visible?

...In what ways can the student be encouraged to use different resources?

...Will the student have the opportunity to role-play the resource person or to participate in a simulation activity?

...Will the student in some way be able to apply aspects of the resource person's work to his own school activities?

...What opportunities can there be for the student to express himself and what he is learning to the teacher, to his peers, to his parents, and to the community?

...In what ways can products of learning be stored, reviewed, revised?

Here is a possible check list of activities you might use:

...Oral expression: reports, telephone interviews, introducing speakers, interviewing, tape recordings, other: (List):

...Written expression: reports, spelling lists, letters, lessons related to basic texts, individualized booklets, other (List):

...Sharing activities: small group reports about trips and interviews, presentation to other classes, projects involving other students as customers, open house, other (List):

...Displays: bulletin boards, experience charts, visible performance, other (List):

EVALUATION

What means can there be for evaluating the student's learning and achievement, including contributions that the student can make to the evaluative process?

> Attitudinal expressions, participation in group work and class discussion, demonstration of skills and/or the ability to relate and to apply knowledge gained, others (list):

There are three approaches to career education unit writing. They all involve human resource talent. One method utilizes the human resource talent as the organizing center, building the skills and drawing from subject matter relevant to the person and the occupation. The second method focuses upon the occupation, using the subject matter to dictate the resource person and the occupation(s) studied. The third approach follows the job cluster grade level grouping plan, to plan and implement units of study related to the clusters assigned to each grade level.

The most important consideration in developing a unit aside from the organizing center, is the format for writing the unit. By adhering to a simple, open-ended format, the teacher is free to develop the unit as she sees needs and interests of students expressed; others wishing to implement a similar unit need not worry with mechanics or intricate details which suit someone else's situation, but not their own.

By organizing a career education unit by CONTENT, RESOURCES, and

BEST COPY AVAILABLE

PERFORMANCE, continuity of the format among schools and grade levels is assured while simplicity is established.

Finally there are six facets of unit design necessary in each unit developed. These too are universal and permeate all grade levels.

1. VISIBILITY (of planning, teaching, and evaluation.)

The old adage, "seeing is believing," is seldom heard but probably applies to school activities now more than at any time previous.

Making our plans visible at all times to the teacher, the student, and to anyone else who comes in the room will not only keep the program moving in an organized manner, but everyone will understand "what's going on" at all times.

Teaching procedures should always include real objects and experiences as well as abstract language and figures.

Parents need to see evidence of what their children are doing. Many activities may be planned for students to share with the "fold" at home to carry out learning experiences. Open house, coffee hours, parent-teacher conferences, and other get-togethers may become very important by using letters to parents, stories and pictures about visits with talent and field trips, experience charts, finished products, and many other things that make the program appealing. These things also serve as very good visibility as well as satisfying evaluations.

2. THE PERSON AS A RESOURCE

The student is as interested in the real world, as represented by an adult, as he is in the world of fantasy. Although preparation for adult living starts at birth, it is with enrollment in school that a structured program begins. In order to make this program more personal and more

meaningful to the student, the organizing center concept is being used. By using the person in the occupation, rather than the occupation itself as an organizing center, education can become more personal and more meaningful to each student.

Through this approach, the student will be made aware of the person in the occupation and how the individual's life is affected by his work. He will develop values by seeing what a person has made of his life; and see the possibilities of what he might accomplish with his own life.

The following questions may be used in planning a unit of study using a person as the organizing center.

Accessibility: (Resources)	What materials and services are available to the learner?
Mobility: (Content)	What content areas (subjects) can emerge from this idea?
Accomplishment: (Performance)	What performance opportunities are open to the learner?

3. ACADEMICALLY ORIENTED

The career education curriculum is not a separate entity from the academic world. The average person deovtes most of his time to a vocational career, but one must not lose sight of the value of the academic skills needed in all vocational areas. Through this project, the student will receive the basic academic skills with the vocational skills integrated. The student must be made aware that his success or failure in vocational areas will depend to a great degree upon his acquiring the basic adademic skills. Advancement within his chosen profession will be reflected by his academic background.

4. CLASSROOM MANAGEMENT

Management is one area which makes it possible for the teacher to reach his or her goals while working with students. The teacher must

make sure that every student is involved in work and activities which the student can be successful in doing. Career education is highly activity oriented. With this concept in mind, the teacher could possibly begin an activity by a short introduction followed by discussion and research work. Following the introduction, the teacher and students could invite representatives from the various areas of work to discuss their jobs. After this has been done, visitation to different job locations could be done as a culminating activity. This is only one way that management can be used by the teacher to insure that his or her objectives are reached and all students have had an opportunity to gain from the activities.

5. PARENT COMMUNICATION

It is essential that parents know what's happening in the classroom. More often than not, the parent receives little, if any, information from the student unless he asks. Even then, the responses are sketchy.

Letters to parents are valuable but not nearly as effective as direct parent involvement. The parent as a resource person can give much more meaning to any program.

School activities should be visible to casual visitors. A planned presentation of activities and their relevance to the total curriculum should be an integral part of each unit.

6. FINISHED PRODUCT

The end product should be what happens to the student. This is determined by both visible and oral activities engaged in by the student and the student's achievement as seen by others. There may be a variety of these accomplishments, such as performance, a play, a diorama, a display, a mural, a model, a report for parents or other members of the school, a newspaper, or a product made by the student. These activities should

synthesize the skills and information gained by the student so as to be meaningful to him at the time, as well as to provide a basis for future performance.

OCCUPATIONS RELATED TO INTEREST AND ABILITY IN CERTAIN SUBJECT AREAS

The Bowling Green school system has developed a list of occupations related to interest and ability in certain subject areas which they are willing to share with other school systems. The list is as follows:

NATURAL RESOURCES (Agriculture, Forestry, Horticulture)

Forester
Fish, Wildlife Management
Soil Conservation
Agriculture Extension
Vocational-Agriculture Teacher
Landscape Architect
4-H Agent
Hatcheryman
Farm Financier
Truck, Fruit Farming
Livestock (Rancher)
Meat Cutter
Farm Service Worker
Farm Products Sales
Farm Machinery Sales
Farm Machinery Service
Auctioneer
Veterinarian
Agriculture Journalism
Agronomist
Agriculture Egnineer
Range Management
Soil
Agriculture Economist
Farm Management
County Extension Agent
Livestock Marketing
Tree Surgeon
Farm Machinery Mechanic
Poultryman
Food Sales
Meat Packing Worker
General Farmer

SOCIAL STUDIES

Editor
Clergyman
Clinical Psychologist
Genealogist
Sociologist
Public Administrator
Social Psychologist
Experimental Psychologist
Anthropologist
Archaeologist
Ethnologist
Historian
Author
Script Writer
Foreign Correspondent
Lawyer
Politician
Labor Teacher
Public Relations Director
Geographer
Actuary
Archivist
Librarian
Cartographer
Reporter
Social Worker
Paleontologist
Economist
Educational Psychologist
Industrial Psychologist
Teacher
Statistician
Personnel Manager

ART

- Artist
- Sculptor
- Interior Decorator
- Photographer
- Dentist
- Cartographer
- Window Trimmer
- Dancer
- Lithographer
- Beautician
- Advertising Layout
- Tailor
- Jeweler
- Cabinet Maker
- Sign Painter
- Stage, TV Screen Designers
- Mechanical Engineer
- Mechanical Draftsman
- Architect
- Commercial Artist
- Architectural Draftsman
- Painter
- Constructional Draftsman
- Cartoonist
- Fashion Designer
- Art Teacher
- Dental Technician
- Carpenter
- Watchmaker
- Displayman
- Photographer

PHYSICS

- Engineer
- Navigator
- Nuclear Engineer
- Forester
- Ophthalmologist
- Pharmacist
- Photographer
- Fireman (firefighter)
- Patternmaker
- Teacher
- Sheet Metal Worker
- Geneticist
- Veterinarian
- Radio-TV Repariman
- Atomic Physicist
- Electronics Engineer
- Geophysicist
- Meteorologist
- Aeronautical Engineer
- Electrical Engineer
- Architect
- Mining Engineer
- Pilot
- Electrician
- Draftsman
- Civil Engineer
- Seismic Observer
- Optometrist
- Physical Chemist
- Dentist
- Plumber
- Mechanic
- Lithographer

BIOLOGY

- Biochemist
- Fish & Wildlife Service
- Herpetologist
- Anthropologist
- Farmer or Rancher
- Curator
- Registered Nurse
- Teacher
- Horticulturist
- Medical Secretary
- Dental Hygienist
- Bacteriologist
- Home Economist
- Botanist
- Landscape Architect
- Veterinarian
- Forest Ranger
- Game Warden
- Occupational Therapist
- Biological Aide
- Zoologist
- Laboratory Technicain
- Dietician
- Dental Assistant

Immunologist
X-Ray Technician
Physician Surgeon
Forester
Biologist
Nurseryman
Tree Surgeon
Practical Nurse
Gardener

MUSIC

Composer
Clergyman
Music Librarian
Music Critic
Radio or TV Announcer
Concert Singer
Character Singer
Comedian
Actress
Dramatic Reader
Impersonator
Proprietor Music Store
Piano Tuner
Occupational Therapist
Chorus Girl
Dance Band Leader
Orchestrator
Teacher
Arranger of Music
Organist
Orchestra Leader
Pianist
Religious Director
Choir Director
Music Director
Recreation Director
Recreational Therapist
Radio or TV Director
Dance Band Player
Sales Clerk
Musical Specialist
Actor
Dancer

CHEMISTRY

Surgeon Physician
Chemical Engineer
Veterinarian
Atonic
Metallurist
Forestry
Laboratory Technician
Photographer
Criminolgoical Chemist
Chemical Salesman
Chemical Processing Plastics
Bacteriologist
Assayer
Electroplater, Lithographer
Stationary Engineer
Artist
Science Teacher
Geologist
Chiropodist
Biochemist
Osteopath
Zoologist
Research Chemist
Agricultural Research
Pharmacist
Dentist
Paint Chemist
Ceramic Engineer
Annealer Welder
Dietician Home Economist
Exterminator
Detective
X-Ray Technician

MATHEMATICS

Architectural Engineer
Navigator
Physician
Statistician
Accountant
Forester
Biological Science
All Engineers
Architect
Chemist

Surveyor
Banker
Insurance
Actuary
Secretary
Mathematics Teacher
Electronic Technician
Plumbers
Carpenter
Electrician
Broadcasting Technician
Dentist
Airplane Pilot
Economist
Draftsman
Optometrist
Dental Technician
Bookkeeper
Bank Clerk
Technician (Science & Engineering)
Machinists
Commercial Teacher
Business Worker

COMMERCIAL AND DISTRIBUTIVE EDUCATION

Certified Public Accountant
Medical Secretary
Stenographer
Bookkeeper
Salesman
Salesperson
General Office Clerk
Grocery Checker
Stockman
Telephone Operator
Service Station Manager
Waiter; Waitress
Salesman-Business Machines
Buyer
Advertising Copy Writer
Teletype Operator
Department Manager
Advertising Manager
Teacher-Coordinator--D.E.
Banker
General Accountant
Bank Cashier
Legal Secretary
Commercial Teacher
Accounting Clerk
Typist
Credit Manager
Sales Promotion Manager
Display Manager
File Clerk
Office Machine Operator
Stock Clerk
Service Station Attendant

HOME ECONOMICS

Dietician
Research
Psychiatric Social Worker
Interior Decorator
Clothes Designer
Homemaker
Registered Nurse
Clothing Sales
Governess
Beautician
Waitress
Cook
Food Sales
Reporter
Milliner
Physical Therapist
Practical Nurse
Child Development
Occupational Therapist
Vocational Teacher
Author
Flight Stewardess
Institution Management
Extension Service
Nutritionist
Home Demonstration Agent
Advertising
Food Processing (test kitchen)
Home Economist
Social Service Worker
Appliance Sales
Waiter
Baby Sitter

ENGLISH

- Editor
- Clergy
- Lecturer
- Poet
- Radio or TV Announcer
- Librarian
- Script Writer
- Social Worker
- Personnel Manager
- Receptionist
- Retail Manager
- Auctioneer
- Sales Manager
- YMCA Secretary
- Vocational Counselor
- Politician
- Stenographer
- Forester
- Judge
- Engineer
- Author
- Scientist
- All Teachers
- Lawyer
- Reporter
- Pharmacist
- Typist
- Actress; Actor
- Interior Decorator
- Proof Reader
- Salesman
- Salesperson
- Employment Manager

HEALTH AND PHYSICAL EDUCATION

- Physician; Surgeon
- Bacteriologist
- Dentist
- Veterinarian
- Dental Technician
- Business Administrator
- Public Health Nurse
- Model
- Swimming Instructor
- Professional Athlete
- Coach
- Recreation Leader
- Sports Writer
- Teacher
- Speech & Hearing Therapist
- Occupational Therapist
- Public Health Statistician
- Virologist
- Chemist
- Osteopath
- Public Health Engineer
- Sanitary Engineer
- Public Health Educator
- Chiropractor
- Dental Hygienist
- Physical Therapist
- Dental Assistant
- Social Worker
- Practical Nurse
- Laboratory Technician
- Lifeguard
- Referee

FOREIGN LANGUAGE

- Composer
- Lawyer
- Ethnologist
- Librarian
- Author
- Historian
- Travel Agent
- Flight Stewardess
- Stenographer
- Teacher
- Dramatic Coach
- Salesman
- Information Clerk
- Tutor
- Medical Missionary
- Social Worker
- Immigration
- FBI Agent Diplomat
- Foreign Services
- Music Teacher

Interpreter; Translator
Physician
Courier
Singer
Anthropologist
Customs
Reporter Foreign Corp
Missionary
Guide
Receptionist
Export Clerks
Actor; Actress

GENERAL SHOP AND INDUSTRIAL ARTS

Draftsman Architectural
Aircraft Mechanic
Auto Mechanic
Gunsmith
Farm Mechanic
General Mechanic
Planer Operator
Logger
Log Grader
Painter
Welder
Service Station Attendant
Machinist
Plumber
Carpenter
Instructor - Mechanical Drawing
Industrial Arts Teacher
Tool Designer
Electrician
Engineer
Draftsman Electrical
Engineer Aide
Diesel Mechanic
Electrician Helper
Draftsman Mechanical
Auto Body & Fender Man
Shop Teacher
Farmer
Cabinet Maker
Wood Turner
Sheet Metal Worker
Log Sawyer
Blacksmith

The academic secondary teacher sees not a series of job clusters, but those specific occupations directly related to his subject. Sometimes the study of a life style emerges from the subject matter suggesting another approach for introducing career concepts. Regardless of the approach chosen, the organizing center of the unit is the resource person or the person on the job.

As the faculty and staff became more involved in career education, ideas for new approaches in teaching old courses and ideas for creating new courses emerged. For example, the format for teaching Research Techniques has been modified to accommodate career research. Students select specific careers for research topics. A new course added to the curriculum as a result of career education is Vocational Psychology. This course was designed to provide the student with information, ex-

periences and activities in human behavior that will be advantageous in the business world and on the job.

In addition to the awareness stage, curriculum changes have been made in the exploratory stage. Through the use of field trips and cooperative ventures with local industries and citizenry, we have attempted to introduce students to actual working situations. For example, students in Mass Communications visit and investigate operations of radio and television stations. In Biology Today, a recently developed course, hands-on experiences and skill related exercises are introduced in the fields of environmental and recreational wild life.

The following two units are examples of the way career education units are developed in Bowling Green.

Name of Unit: Infectious Disease

Grade Level: 10 - 12

Objectives:

1. The student will have a knowledge of the various ways in which infectious organisms spread from one person to another.
2. The roles of immune therapy, chemotherapy, and antibiotic therapy in preventing and treating infectious diseases.
3. Contributions made by scientists about pathogenic organisms, of public health measures in the prevention of disease, and the role of the average person in helping to carry out community disease control.
4. Measured by a teacher-made test, 60% accuracy.

Resources:

1. Modern Biology (Textbook)
2. Filmstrips, movies
3. Mr. Lovell, Health Department Representative
4. Lab technicians and Mr. Sisney

Content:

Study the following:

1. Ways to identify a disease-producing organism

2. Ways organisms may spread

3. Methods of control against a disease

Performance:

1. Speaker

2. Demonstration of antiseptics on growth of bacteria, bacteriological analysis of water and milk

3. Study of prepared slides of disease producing organisms

4. Use above resources in class room

5. Grow penicillin in the laboratory

Evaluation:

1. Teacher-made test, 60 % accuracy

Unit: Great Books and Ideas
When Change Affects our Life Style

Subject: English

Objective:

1. The student will be able to identify elements of typical individual life-styles and show how these factors along with change episodes influence career decisions.

Resources:

1. People:

   a. A person from the community who has worked in one location all his life

   b. A person who travels in his work

   c. A person who changed occupations

   d. A woman who found a job after years of housekeeping and caring for a family

2. Library

3. Textbooks and reference materials

4. Great Books of the Western World

5. Information on adult training programs

Content:

1. Concepts of Career Education

   a. Every individual develops a personal style which he can fulfill in a career which suits his style.

   b. A person may be suited for several careers.

   c. People change, societies change, and sometimes careers must change as a result.

   d. People must adapt to all social change.

   e. Changes in society affect careers and life-styles.

2. Academic Concepts

   a. Desire to develop latent aptitudes and abilities and to put them to use--Ibsen's Doll House

   b. Pressure from society--Ibsen's Ghosts

   c. Student ideas about the concept of life-styles

   d. Laws pertaining to women's rights in the U.S.--American Women

   e. New technological developments--various magazines

   f. Principles of discussion

   g. Group discussion of the factors that contributed to the unemployment problem and the retraining needs that exist so that society can best use all the talents of both women and men.

Performance:

1. Displays

   a. Bulletin boards

   b. Charts

2. Written expression

   a. Themes

b. Paragraphs

c. Letters of invitation to resource persons

3. Oral expression

a. Class discussion

b. Group discussions

c. Reports from research and from individual reading

d. Interviews

e. Tape recordings

4. Sharing activities

a. Students interview (and share) parents and persons who have experienced changes in their life styles. For instance, many families have made changes because jobs are not to their liking. Many women have changed jobs because they wanted to find out who they are and what their place in society is.

b. Class develops a working definition of life-style.

c. Class develops a survey of occupations of local customs as they affect jobs for women.

We hope the preceding information will be of value to classroom teachers working with career education in Kentucky. If further information is needed or desired please feel free to contact:

The Curriculum Development Center
Rooms 151 - 152
Taylor Education Building
University of Kentucky
Lexington, Kentucky 40506